

**SUMA K5375 State of the Data in Sustainability**  
**Summer Session D: T/Th 6:10-8:00 PM**  
**3 Credits**

**Instructor:** Todd Cort, Lecturer, [todd.cort@googlemail.com](mailto:todd.cort@googlemail.com), 415 786 4394  
**Office Hours:** Office hours to be held the hour preceding each class (location TBD).  
**Response Policy:** Generally available during the workweek by phone and email. Students can expect a response within 24 hours of most correspondence.

## Course Overview

The purpose of this course is to review the current status of sustainability data, particularly from the perspective of companies, investors and regulators. Sustainability data is already used to drive significant decisions by these three stakeholders. For example, investors use environmental, social and governance (ESG) data to screen and weight potential equity investments and/or rate fixed income investment. Regulators have instituted numerous mandatory and voluntary reporting schemes to reactively assess environmental and social impacts of corporate behavior. Companies themselves use sustainability data to determine the nature of and performance against risks such as climate change, poverty and resource scarcity. And yet there are enormous shortcomings in the current data available on which these decisions are made. The impact of the gap between the quality of the data in sustainability and the magnitude of the decisions being made with that data are potentially enormous. From misguided policies to ineffective corporate strategies to a lingering skepticism on the financial value of sustainability that hinders large scale movement of capital toward more responsible companies, the state of sustainability data may be the single most significant hurdle to move toward a more sustainable economy.

In Part 1 of this course we will explore challenges for sustainability data in terms of scope, comparability, methodology, validation and coverage. We will also look toward movement in the sustainability data space to discuss the best ways forward. In Part 2, we will look at case studies from the company, investor and regulator perspectives using current sustainability issues (such as water, carbon and ESG writ large) to explore specific challenges and suggest solutions.

This course satisfies the M.S. in Sustainability Management curriculum area requirements for Area 2: Quantitative Analysis and Area 5: General and Financial Management. This course is approved for the Certification in Sustainability Analytics.

## Learning Objectives

At the end of the course, students will:

- Recognize and be able to find sources of sustainability data useful to their future jobs in finance, government or corporate sustainability.
- Recognize the strengths and weaknesses of current sustainability data sets available to regulators and investors
- Be able to apply sustainability data to decision-making and integrate critical assumptions on the quality and coverage of this data when making these decisions
- Identify and analyze the current movements and efforts to improve and expand sustainability data including the hurdles currently in place for these efforts.
- Apply sustainability data to multiple use cases (e.g. applying sustainability data in order to rate a potential investment, or measure a corporate sustainability program, or assess the effectiveness of an environmental regulation)

## Readings

Financing for a Sustainable Future: Estimating the environmental benefits of Bank of America's Environmental Business Initiative, < <http://about.bankofamerica.com/assets/pdf/financing-sustainable-future.pdf>>

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United Nations Principles of Responsible Investment, “Annual Report 2015: From Awareness to Impact,”  
<http://www.unpri.org/publications/>

Global Sustainable Investment Alliance, “2014 Global Sustainable Investment Review,” <[http://www.gsi-alliance.org/wp-content/uploads/2015/02/GSIA\\_Review\\_download.pdf](http://www.gsi-alliance.org/wp-content/uploads/2015/02/GSIA_Review_download.pdf)>

Marc Orlitzky, Frank Schmidt, and Sara Rynes, “Corporate social and financial performance: A meta-analysis,” *Organization Studies*, 24/3 (2003): 403-441.

Robert Eccles, Ioannis Ioannou, and George Serafeim, “The Impact of Corporate Sustainability on Organizational Processes and Performance,” *Management Science*, 60/11 (2014): 2835–2857.

Gordon Clark, Andreas Feiner and Michael Viehs, “From Stockholder to Stakeholder: How Sustainability Can Drive Financial Outperformance,” *University of Oxford* (September 2014) (Excerpt – 2 Chapters)

Daniel C. Esty and Andrew Winston, *Green to Gold: How Smart Companies Use Environmental Strategy to Innovate, Create Value and Build Competitive Advantage* (Hoboken, NJ: Wiley, 2009): 300-01. (Excerpt 1 Chapter)

David Lubin and Daniel Esty, “The Sustainability Imperative,” *Harvard Business Review* (2010).

Mozaffar Kahn, George Serafeim, and Aaron Yoon, “Corporate Sustainability: First Evidence on Materiality,” *Harvard Business School Working Paper* #15-073 (2015).

S. Douglas Beets and Christopher C. Souther, “Corporate Environmental Reports: The Need for Standards and an Environmental Assurance Service,” *Accounting Horizons*, 13/2 (1999): 129-145.

Peter Clarkson, Michael Overell, and Larelle Law Chapple, “Environmental reporting and its relation to corporate environmental performance,” *ABACUS*, 47/1 (2011): 27-60.

MSCI, “Executive Summary: Intangible Value Assessment (IVA) Methodology,” (December 2014),  
<[https://www.msci.com/resources/factsheets/IVA\\_Methodology\\_SUMMARY.pdf](https://www.msci.com/resources/factsheets/IVA_Methodology_SUMMARY.pdf)>.

Cary Krosinsky and Nick Robins, “Sustainable Investing: The Art of Long-Term Performance,” *Earthscan* (New York, NY: Taylor & Francis, 2008) (Excerpt – 2 chapters)

Cort, T. and Esty, D. “Sustainability Metrics: What Investors Need and Do Not Get”, submitted to *California Management Review*

\*\*Yonovjak, L., O’Reed, P., Juahari, A., Galardi, J., Krosinsky, C., Esty, D. and Cort, T., A Framework for Evaluating Environmental Performance of Fixed Income Investments, in preparation for *Harvard Business Review*

## Resources

### *Columbia University Library*

Columbia’s extensive library system ranks in the top five academic libraries in the nation, with many of its services and resources available online: <http://library.columbia.edu/>.

### *SPS Academic Resources*

The Office of Student Life and Alumni Relations (SLAR) provides students with academic counseling and support services such as online tutoring and career coaching: <http://sps.columbia.edu/student-life-and-alumni-relations/academic-resources>.

## Course Requirements (Assignments)

There are six (6) assignments that must be completed in this course (one per week). The weekly assignment is due at the beginning of class on Thursday of that week (e.g., Assignment #1 – the first Position Paper – is due at the beginning of class on May 26).

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The first three (3) assignments are Position Papers. These assignments involve a critical reading of an assigned article. Position Papers are to be no more than 3 pages in length and shall include a summary of the salient points of the article as well as an analysis of the strengths and weaknesses of the article in terms of methodology and application.

The final three (3) assignments are case studies. These assignments involve suggesting a solution to a specific dilemma. The three case studies in this course will look at sustainability data challenges faced by three stakeholders respectively: corporations (NRG), investors (Bank of America) and regulators (US Government post COP-21). Case studies will include an answer to the dilemma, rationale to support that answer and evidence, calculations, logic and assumptions behind the rationale. Case study deliverables will be no more than 5 pages in length including any appendices.

### Peer Evaluation

Peer evaluations will consist of a 2 question survey completed by each group member to reflect and feedback on their group peer's performance during work on each deliverable. Each question will be scaled to High (5)/Medium(3)/Low(0). The average score assigned by peers across all 6 deliverables will be used for the Peer Evaluation Points (5 Maximum Points).

### Attendance and Participation

Students will be expected to actively participate in class discussions each week and to display an understanding of the weekly reading in their comments and questions.

## Evaluation/Grading

100 Points Total divided as follows:

- 1) Attendance and class participation (5 Points)
  - a. Active participation in class. These points will be assigned based on tic-marks during class: 5 tic-marks for presenting; 1 tic-mark for posing a question or suggesting an answer to a posed question. Final point allocation to be determined based on curve around average student tic-marks.
  - b. Attendance. (1 point removed for each unexcused absence up to 5)
- 2) Assigned reading position papers (one per week for the first three weeks – 15 points each for total of 45 points)
  - a. 6 Points: Summary of salient points from article
  - b. 7 Points: Analysis of strengths and weaknesses of article
  - c. 2 Points: Deliverable is presented within the length limits
- 3) Case study deliverables (one per week for the final three weeks - 15 points each for total of 45 points)
  - a. 3 Points: Deliverable answers the business dilemma
  - b. 5 points: Deliverable presents a clear logic to support the answer
  - c. 5 Points: Deliverable uses calculations, data and/or cited evidence to support the answer
  - d. 2 Points: Deliverable is presented within the length limits
- 4) Peer Evaluation (5 Points)

The following clarifies how points awarded to individual assignments translate into letter grades for the course:

A+ is for extraordinary work, above & beyond; A = 93-100, A- = 90-92,

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B+=87-89, B= 84-86, B-=80-83, C+=77-79, C=74-76, C=70-73, D=66-69, F= 65 or fewer.

**Course Policies**

*Participation and Attendance*

Discussion in class is a critical element of the course and therefore attendance to each class is mandatory. Students are expected to come well prepared to discuss topics in class. Case Study discussions in particular require substantial preparation so that students understand the details, contributors and nuances of the case study before entering the class session. While the class discussions are intended to be ‘voluntary’, we will rely on cold calling as necessary to determine student preparation and to address critical aspects of each topic. Discussions are expected to be challenging, yet civil and part of the evaluation is based on the student’s ability to hear others before forming opinions.

*Late work*

There are 6 deliverables. Deliverables are associated with position papers or case studies each week and will be due at the beginning of class each Thursday via email to todd.cort@googlemail.com. The instructor will respond to each submitted deliverable by email and it is the responsibility of the student to ensure that their deliverable has been received by the instructor. Deliverables may be submitted up to one day late for a 25% automatic reduction in score. No deliverables will be accepted over 24 hours after the due date/time.

**Course Schedule/Course Calendar**

Session	Date	Topics	Deliverable	Readings
1	5/24	<b>Setting the stage:</b>	Position Paper #1: Eccles, Ioannou and Serafeim	Marc Orlitzky, Frank Schmidt, and Sara Rynes, “Corporate social and financial performance: A meta-analysis,” <i>Organization Studies</i> , 24/3 (2003): 403-441. (37 pages)  **Robert Eccles, Ioannis Ioannou, and George Serafeim, “The Impact of Corporate Sustainability on Organizational Processes and Performance,” <i>Management Science</i> , 60/11 (2014): 2835–2857. (24 pages)  Gordon Clark, Andreas Feiner and Michael Viehs, “From Stockholder to Stakeholder: How Sustainability Can Drive Financial Outperformance,” <i>University of Oxford</i> (September 2014) (Excerpt 2 Chapters) (20 pages)  Cary Krosinsky and Nick Robins, “Sustainable Investing: The Art of Long-Term Performance,” <i>Earthscan</i> (New York, NY: Taylor & Francis, 2008) (Excerpt) (10 pages)  David Lubin and Daniel Esty, “The Sustainability Imperative,” <i>Harvard Business Review</i> (2010). (19 pages)
2	5/26	Where does sustainability data come from?  Who uses this data and how?  The ‘world of sustainability data’: organizations and stakeholders in sustainability data  Focus on investors  Focus on regulators		
3	5/31	<b>The ‘State of the Data’:</b>	Position Paper #2: Cort and Esty	Daniel C. Esty and Andrew Winston, <i>Green to Gold: How Smart Companies Use Environmental Strategy to Innovate, Create Value and Build Competitive Advantage</i> (Hoboken, NJ: Wiley, 2009): 300-01. (Excerpt Chapter 3) (35 pages)  Mozaffar Kahn, George Serafeim, and Aaron Yoon, “Corporate Sustainability: First Evidence on Materiality,” <i>Harvard Business School Working Paper</i>
4	6/2	Coverage and boundary challenges		
5	6/7	Comparability challenges and normalization  Accuracy challenges		

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		<p>Estimated vs measured</p> <p>'Pinchpoints' in data collection and analysis</p> <p>Data verification and audit</p>		<p>#15-073 (2015). (55 pages)</p> <p>**Cort, T. and Esty, D. "Sustainability Metrics: What Investors Need and Do Not Get", submitted to <i>California Management Review</i> (33 pages)</p>
6	6/9	<p><b>Current Actors:</b></p> <p>Efforts to improve data quality</p> <p>Integrated reporting, SASB, IR</p> <p>Key actors: MSCI, Sustainalytics</p> <p>Regulatory efforts</p>	<p>Position Paper #3: Yonovjak et al</p>	<p>MSCI, "Executive Summary: Intangible Value Assessment (IVA) Methodology," (December 2014), &lt;<a href="https://www.msci.com/resources/factsheets/IVA_Methodology_SUMMARY.pdf">https://www.msci.com/resources/factsheets/IVA_Methodology_SUMMARY.pdf</a>&gt;. (28 pages)</p> <p>Global Sustainable Investment Alliance, "2014 Global Sustainable Investment Review," <a href="http://www.gsi-alliance.org/wp-content/uploads/2015/02/GSIA_Review_download.pdf">http://www.gsi-alliance.org/wp-content/uploads/2015/02/GSIA_Review_download.pdf</a> (36 pages)</p> <p>United Nations Principles of Responsible Investment, "Annual Report 2015: From Awareness to Impact," <a href="http://www.unpri.org/publications/">http://www.unpri.org/publications/</a> (31 pages)</p> <p>S. Douglas Beets and Christopher C. Souther, "Corporate Environmental Reports: The Need for Standards and an Environmental Assurance Service," <i>Accounting Horizons</i>, 13/2 (1999): 129-145. (17 pages)</p> <p>**Yonovjak, L., O'Reed, P., Juahari, A., Galardi, J., Krosinsky, C., Esty, D. and Cort, T., A Framework for Evaluating Environmental Performance of Fixed Income Investments, in preparation for <i>Harvard Business Review</i> (25 pages)</p>
7	6/14	<p><b>Companies and Sustainability Performance:</b></p> <p>Corporate materiality</p> <p>Data collection processes and challenges</p> <p>Corporate sustainability management systems</p> <p>Forces of internalization: market, society, non-market</p> <p>Litigation, commercial sensitivity, intellectual property and their impact on data</p>	<p>Case Study #1: NRG</p>	<p>NRG Sustainability Report <a href="http://www.nrg.com/sustainability">www.nrg.com/sustainability</a> (54 pages)</p>
8	6/16			<p>KPMG – The Essentials of Materiality Assessment, October 2014 (19 Pages)</p>
9	6/21	<p><b>Investors and ESG Data:</b></p> <p>Investor types: from values to green alpha</p> <p>The ESG Data Chain – from companies to fund advisors</p>	<p>Case Study #2: Bank of America</p>	<p>Financing for a Sustainable Future: Estimating the environmental benefits of Bank of America's Environmental Business Initiative, &lt;<a href="http://about.bankofamerica.com/assets/pdf/financing-sustainable-future.pdf">http://about.bankofamerica.com/assets/pdf/financing-sustainable-future.pdf</a>&gt;</p>
10	6/23			<p>Flammer, Caroline, Corporate Social Responsibility and Shareholder Value: The Environmental Consciousness</p>

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		<p>Data analytics and ‘green rankings’</p> <p>Green Bonds and fixed income vehicles – impact, due diligence and green assessments</p>		<p>of Investors (July 18, 2011). Available at SSRN: <a href="http://ssrn.com/abstract=1888742">http://ssrn.com/abstract=1888742</a> or <a href="http://dx.doi.org/10.2139/ssrn.1888742">http://dx.doi.org/10.2139/ssrn.1888742</a> (29 pages)</p> <p>Eccles, R.G., Ioannou, I. and Serafeim, G. The Impact of Corporate Sustainability on Organizational Processes and Performance (24 pages)</p> <p>Reimsbach, D. and Hahn, R. (2013), The Effects of Negative Incidents in Sustainability Reporting on Investors’ Judgments—an Experimental Study of Third-party Versus Self-disclosure in the Realm of Sustainable Development. <i>Bus. Strat. Env.</i>. doi: 10.1002/bse.1816 (15 pages)</p> <p>W. Brooke Elliott, Kevin E. Jackson, Mark E. Peecher, and Brian J. White (2014) The Unintended Effect of Corporate Social Responsibility Performance on Investors' Estimates of Fundamental Value. <i>The Accounting Review</i>: January 2014, Vol. 89, No. 1, pp. 275-302. doi: <a href="http://dx.doi.org/10.2308/accr-50577">http://dx.doi.org/10.2308/accr-50577</a> (18 pages)</p>
11	6/28	<b>Regulators and ‘externality’ data:</b>	Case Study #3: Post-COP21	UNFCCC, Conference of the Parties, Twenty-First Session, Paris 30 November to 11 December 2015, < <a href="http://unfccc.int/resource/docs/2015/cop21/eng/07.pdf">http://unfccc.int/resource/docs/2015/cop21/eng/07.pdf</a> > (66 pages)
12	6/30	<p>Current state of regulatory data</p> <p>Carbon tax and carbon markets from the data perspective</p> <p>Conflict Minerals data</p> <p>Looking forward – data constraints on regulating sustainability externalities</p>		

**School Policies**

*Copyright Policy*

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*Academic Integrity*

Columbia University expects its students to act with honesty and propriety at all times and to respect the rights of others. It is fundamental University policy that academic dishonesty in any guise or personal conduct of any sort that disrupts the life of the University or denigrates or endangers members of the University community is unacceptable and will be dealt with severely. It is essential to the academic integrity and vitality of this community that individuals do their own work and properly acknowledge the circumstances, ideas, sources, and assistance upon which that work is based. Academic honesty in class assignments and exams is expected of all students at all times.

SPS holds each member of its community responsible for understanding and abiding by the SPS Academic Integrity and Community Standards posted at <http://sps.columbia.edu/student-life-and-alumni-relations/academic-integrity-and-community-standards>. You are required to read these standards within the first few days of class. Ignorance of the School's policy concerning academic dishonesty shall not be a defense in any disciplinary proceedings.

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*Accessibility*

Columbia is committed to providing equal access to qualified students with documented disabilities. A student's disability status and reasonable accommodations are individually determined based upon disability documentation and related information gathered through the intake process. For more information regarding this service, please visit the University's Health Services website: <http://health.columbia.edu/services/ods/support>.